

What is claimed is:

- 1 1. A method for diagnosing disorders associated with altered protein glycosylation
2 comprising the steps of:
 - 3 (a) providing a sample of an appropriate body fluid;
 - 4 (b) isolating protein from the sample;
 - 5 (c) mixing the protein with labeled wheat germ agglutinin;
 - 6 (d) detecting the level of binding of the proteins with the labeled wheat germ
7 agglutinin; and
8 (e) comparing result of step (d) with the level of a known standard.
- 9 2. The method according to claim 1, wherein the body fluid is cerebrospinal fluid, blood or
10 blood plasma.
- 11 3. The method according to claim 1, wherein the wheat germ agglutinin is labeled with
12 biotin.
- 13 4. A method for diagnosing Alzheimer's Disease comprising the steps of:
 - 14 (a) providing a sample of an appropriate body fluid;
 - 15 (b) isolating protein from the sample;
 - 16 (c) mixing the protein with labeled wheat germ agglutinin;
 - 17 (d) detecting the level of binding of the proteins with the labeled wheat germ
18 agglutinin; and
19 (e) comparing result of step (d) with the level of a known standard.

- 1 5. A method for diagnosing dementia and prion disease comprising the steps of:
- 2 (a) providing a first sample of an appropriate body fluid;
- 3 (b) isolating protein from the first sample;
- 4 (c) mixing the protein with labeled wheat germ agglutinin;
- 5 (d) detecting the level of binding of the proteins with the labeled wheat germ
- 6 agglutinin;
- 7 (e) comparing step (d) with the level of a known standard;
- 8 (f) combining a second sample of the appropriate body fluid with ConA;
- 9 (g) measuring the percentage of acetylcholinesterase bound to ConA of the
- 10 second sample;
- 11 (h) measuring the percentage of acetylcholinesterase unbound to ConA of the
- 12 second sample; and
- 13 (i) calculating the ratio of the acetylcholinesterase unbound to the ConA of
- 14 the second sample to the level of binding of the proteins with the labeled wheat germ
- 15 agglutinin of the first sample.

- 1 6. The method according to claim 5, wherein the samples are isolated from Alzheimer's
- 2 Disease subjects.

- 1 7. A method for diagnosing dementia and prion disease comprising the steps of:
- 2 (a) providing a first sample of an appropriate body fluid;
- 3 (b) isolating protein from the first sample;
- 4 (c) mixing the protein with labeled wheat germ agglutinin;

- 5 (d) detecting the level of binding of the proteins with the labeled wheat germ
6 agglutinin;
- 7 (e) comparing step (d) with the level of a known standard;
- 8 (f) combining a second sample of the appropriate body fluid with ConA;
- 9 (g) detecting the presence of butyrylcholinesterase with an altered
10 glycosylation pattern binding to ConA of the second sample;
- 11 (h) measuring the percentage of butyrylcholinesterase unbound to ConA of
12 the second sample; and
- 13 (i) calculating the ratio of the butyrylcholinesterase unbound to the ConA of
14 the second sample to the level of binding of the proteins with the labeled wheat germ
15 agglutinin of the first sample.

- 1 8. The method according to claim 7, wherein the samples are isolated from Alzheimer's
2 Disease subjects.